OCPM

RESEARCH UPDATE

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OCPM ACFAS STUDENT CHAPTER WINS FIRST PLACE IN POSTER COMPETITION

Congratulations to the OCPM student chapter of the American College of Foot and Ankle Surgeons (ACFAS) for their first place finish in the student chapter poster competition at the annual ACFAS national meeting in March in Washington, DC!! The poster, entitled "The Anatomical Location of the Flexor Hallucis Brevis as it Pertains to Hemi Implants", was authored by OCPM students Erigena Baze, Anthony LaLama, Patrick Branagan, Michael Bowen, Kiana Trent, Danielle Malin and Tiffany DeLutis. The students worked very hard on the research, under the supervision of advisor Dr. DeMore, and we are very proud of their accomplishment!

DRS. CARROLL AND SPENCER RECEIVE FUNDING FOR A STUDY TO EVALUATE IBUNEX FOR THE TREATMENT OF HEEL PAIN

OCPM has received a research grant of $2500 plus all study supplies from Core Products International, Inc. to conduct a research project entitled "Evaluation of Ibunex as a Treatment for Heel Pain: A Double-Blind Pilot Study". The study will evaluate the effectiveness of Ibunex, a topical ibuprofen, in treating heel pain, as compared to a placebo. Dr. Spencer will be the Principal Investigator and Dr. Carroll will be the Study Monitor. The study will be initiated after OCPM Research Committee and IRB review.

DR. YAVUZ TO SUBMIT AN NIH SBIR GRANT APPLICATION

Dr. Yavuz will submit an NIH Small Business Innovation Research (SBIR) grant application in April with Infoscitex, Inc., located in Massachusetts. The project aims at developing an artificial neural network model that will predict distribution of plantar shear stresses in healthy individuals. The ultimate goal of the project is to design smart footwear that can monitor stress levels and temperature under the feet of diabetic patients and alert them when hazardous thresholds are reached. Both temperature increase and plantar stresses have been associated with the pathology of diabetic foot ulcers.

DRS. CALDWELL AND CARROLL TO COLLABORATE WITH CASE WESTERN RESERVE UNIVERSITY INVESTIGATOR ON IDF GRANT APPLICATION

Drs. Caldwell and Carroll are collaborating with Ann Williams, PhD, RN of CWRU on a grant proposal entitled "Nonvisual Foot Inspection for People with Visual Impairment". This pilot study will investigate the effects of teaching a method for nonvisual foot inspection to people with visual impairment and diabetes, using the senses of touch and smell. It will look at people's responses to being taught nonvisual foot inspection and also their foot care practices over the period of one year. In particular, one of the aims of the study is to determine whether nonvisual foot inspection helps visually-impaired diabetic individuals to discover foot problems at an early stage, when the problems are easier to treat. Dr. Caldwell will serve as the Project Podiatrist, while Dr. Carroll will be the Study Monitor for the pilot study to be conducted at CFAI. A Letter of Intent, consisting of a summary of the proposal, will be submitted by Dr. Williams for the International Diabetes Federation (IDF) Bringing Research in Diabetes to Global Environments and Systems (BRIDGES) grant by March 31.

DR. YAVUZ OBTAINS APPROVAL FOR INTRAMURAL GRANT APPLICATION

An intramural grant application by Dr. Yavuz has recently been approved by the OCPM Research Committee and IRB. The project will investigate a potential association between plantar temperature increase and frictional forces under the foot of healthy human subjects. The study is expected to start in April. A total of seven OCPM students will assist Dr. Yavuz in subject recruitment, assessment and data collection during the study.

DRS. YAVUZ AND HETHERINGTON PUBLISH PAPERS

A manuscript co-authored by Drs. Yavuz and Hetherington has recently been accepted by the Journal of Biomechanical Engineering. The paper investigates the feasibility of predicting plantar shear stress profiles in diabetic, hallux valgus and rheumatoid arthritis patients as well as athletic individuals who are prone to foot blisters. Artificial intelligence methods have been developed by the investigators, which utilized pressure data obtained from the enrolled subjects. As the project achieved limited success, Dr. Yavuz will investigate methods to increase the performance of the models by incorporating other parameters such as temperature. The report is expected to appear in one of the summer issues of the journal.

Another paper co-authored by Dr. Yavuz and Dr. Brian Davis of the Cleveland Clinic, which explores the association of foot blisters and frictional forces on the foot sole will appear in an upcoming issue of the Journal of the American Podiatric Medical Association. Blistering of the foot remains a major problem in military personnel as well as professional sports players. The report discusses the actual etiology of the problem and a number of options to prevent foot blisters in such individuals.

NIH OFFERS CHALLENGE GRANTS AS A RESULT OF THE ECONOMIC STIMULUS PLAN

The NIH has received new funds for Fiscal Years 2009 and 2010 as part of the American Recovery and Reinvestment Act of 2009. The NIH has designated at least $200 million for a new initiative called the NIH Challenge Grants in Health and Science Research. This new program will support research on topic areas which address specific scientific and health research challenges in biomedical and behavioral research that would benefit from significant 2-year jumpstart in funds. The NIH has identified a range of Challenge Areas that focus on specific knowledge gaps, scientific opportunities, new technologies, data generation, or research methods that would benefit from an influx of funds to quickly advance the area in significant ways. Each NIH Institute, Center, and Office has selected specific Challenge Topics within the broad Challenge Areas related to its mission. The research in these Challenge Areas should have a high impact in biomedical or behavioral science and/or public health. For more information, please see the Deadlines-at-a-Glance section below.

DEADLINES-AT-A-GLANCE: UPCOMING GRANT APPLICATION DEADLINES

National Institutes of Health (NIH)

Public Health Service Research Grants (R01)

The NIH is accepting proposals for research in a wide variety of fields, including arthritis, musculoskeletal disorders, diabetes and skin diseases. Funding is available for three to five years, with no restrictions on amount of support. More information on this grant is available in the library and at http://grants1.nih.gov/grants/

Deadlines: June 5
October 5

Academic Research Enhancement Award (R15)

The NIH AREA program has three objectives: 1) to develop the research environment a “smaller, less prominent, four-year, public and private colleges and universities which provide baccalaureate or advanced training for a significant number of our nation’s research scientists but which have not shared adequately in the growth of the NIH extramural program”, 2) to expose students at such institutions to the research experience, and 3) to support meritorious research. The AREA program supports small-scale research projects, including feasibility or pilot studies, in health-related topics. More information is available at http://grants1.nih.gov/grants/funding/area.htm

Deadlines: June 25
October 25

Challenge Grants In Health and Science Research

The NIH Challenge Grants support research in a range of Challenge Areas selected by the NIH that focus on specific knowledge gaps, scientific opportunities, new technologies, data generation, or research methods that would benefit from an influx of funds to quickly advance the area in significant ways. The Challenge Areas include behavior, behavioral change, and prevention; bioethics; biomarker discovery and validation; clinical research; comparative effectiveness research (CER); enabling technologies; enhancing clinical trials; genomics; health disparities; information technology for processing health care data; regenerative medicine; science, technology, engineering and mathematics education (STEM); smart biomaterials – theranostics; stems cells; and translational science. Within each broad Challenge Area, the NIH Institutes, Centers, and Offices have specified particular Challenge Topics that address their mission. More information is available at http://grants.nih.gov/grants/guide/rfa-files/RFA-OD-09-003.html

Deadline: April 27, 2009